



DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

FISH AND WILDLIFE SERVICE

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PHOTOS SHOW EFFORT TO COMBAT DUCK SICKNESS

The Federal Government concerns itself not only with the public health of its human population but also with the well-being of the animal citizens of the forests, woodlands, and streams. As the Public Health Service guards Americans against death-dealing diseases, so the Fish and Wildlife Service of the United States Department of the Interior, fights against the maladies that play havoc with wild animals.

At present the wildlife doctors of the Fish and Wildlife Service are waging a scientific battle against botulism, a disease that suddenly springs up in epizootic form—like influenza and other epidemics that strike humans—and often wipes out thousands of birds before it suddenly subsides.

The conditions that produce "duck sickness," as botulism is popularly called, are not completely known, but the disease has been identified as a kind of food poisoning and has been traced to a bacterium called Clostridium botulinus, type C. Present information leads wildlife health authorities to believe that the guilty organism grows rapidly in mud mixed with organic waste and oxygen-depleted water.

Botulism usually breaks out during the summer. Centers of the botulism area are in the western semiarid or alkaline-lake States. A few years ago scientists

walking along the shores of Great Salt Lake found so many dead and ailing wild fowl that the observers had to step carefully to avoid treading on the birds.

To combat botulism and investigate possible preventive measures, the Fish and Wildlife Service, United States Department of the Interior, has wildlife-disease experts investigating the problem. Typical are the scenes shown in accompanying photographs taken at several wildlife refuges when these outbreaks occur and where the Service has erected a "duck hospital."

NOTE TO EDITOR: Individual legends are attached to the prints. Will you kindly return unused prints to the Fish and Wildlife Service, United States Department of the Interior, Washington, D. C.

B-57960.--SANCTUARY. The Medicine Lake National Wildlife Refuge, Mont., is one of 266 wildlife sanctuaries in the nationwide network administered by the Fish and Wildlife Service. In October 1938, some 100,000 migratory waterfowl visited this area. A big duck resort like this has to have a healthy habitat if the wild fowl population is to increase.

B-7842-M.--LABORATORY ON WHEELS. Like public health officials who take their scientific equipment through the hinterlands, the wildlife doctors go right to the scene of a botulism outbreak with their traveling laboratories. No ordinary trailer, this mobile testing station is used by scientists of the Fish and Wildlife Service to study conditions in the field and is equipped with a powerful microscope, an oxygen-determination apparatus, and other gadgets used to learn more about local conditions that cause the disease.

B-57962.--TESTING THE WATER. The wildlife-disease expert takes a sample of water from a lake suspected of harboring the botulism organisms and tests it on

the spot. If no oxygen is present, the possibility of botulism epidemics is great, for organisms producing the disease thrive in oxygen-free substances.

B-34-X2.--THE CLEAN UP SQUAD AT WORK. A common hayrake takes to the water to remove rotting plants and other debris that help botulism organisms multiply.

B-34-X3.--A CHURN FOR THE BETTER. The hayrake also agitates the water sufficiently to oxygenate it. This dilutes or dissipates the toxin pockets and makes the "duck sickness" germ less potent.

B-17111.--BOTULISM STRIKES FAST. Botulism is a blitzkrieg in the feathered world, for it strikes quickly. This mallard is in the final stages of duck sickness. Affected birds, like this one, are prostrate, respiration is slow and feeble, and the heart action is weak.

B-57964.--FIRST AID FOR THE SICK. Stretcher bearers are constantly on the look-out for sick birds, which are placed in this case and hurried to the hospital.

B-57959.--HOSPITAL. A sick duck goes to the hospital for treatment. National wildlife refuges in the "duck sickness" region have "duck hospitals" where the wild fowl are interned.

B-57963.--NO WARDS; ALL PRIVATE ROOMS. Everybody gets a private room in the duck hospital where a staff of doctors, nurses, and orderlies prescribe treatments and bring the birds back to health. When a wild bird is stricken with botulism, it loses most of its energy, and paralysis sets in. About 75 percent of these patients will recover.

B-53385.--SAY "AH". The doctor feeds the patient a weak solution of magnesium sulphate and potassium permanganate. Very weak birds are given an injection of sterile glucose. This gives the ailing birds the nourishment they can't get through normal feeding because their digestive system is upset.

B-57965.--THE SUN ROOM. Convalescents in a small pond, where recuperating ducks are fast gathering energy. There is no top to the enclosure. When a bird feels strong enough to fly, he (or she) escapes over the fence to freedom.

B-58853.-- I'M BACK AGAIN, BOYS. Hale and hearty, the recovered patients return to their flocks, such as this concentration of pintails on the Sacramento National Wildlife Refuge in California.

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